

What is claimed is:

1. A method of driving an EL display device in which a plurality of pixels, each having a first TFT, a second TFT, a third TFT, and an organic EL element, are formed,
5 wherein:
 - n + m display periods (where n and m are both natural numbers) appear in one frame period;
 - the n + m display periods each correspond to one bit of a digital video signal among n bits of the digital video signal;
 - 10 a plurality of display periods, among the n + m display periods. correspond to the same bit of the digital video signal:
 - other display periods corresponding to other bits of the digital video signal, among the n + m display periods, appear between the plurality of display periods;
 - 15 for each of the n + m display periods, the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on, and the respective display periods begin by the third TFT turning off:
 - after each of the n + m display periods begins. the respective display periods are completed by the beginning of another display period. or by the third TFT 20 turning on; and
 - the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off.
2. A method according to claim 1, wherein the first TFT and the second TFT have
25 the same polarity.

3. A method according to claim 1, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

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4. A method according to claim 1, wherein the first TFT functions as a switching TFT, the second TFT functions as a EL driver TFT, and the third TFT functions as a erasing TFT.

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5. A method of driving an EL display device in which a plurality of pixels, each having a first TFT, a second TFT, a third TFT, and an organic EL element, are formed. wherein:

n + m display periods (where n and m are both natural numbers) appear in one frame period;

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the n + m display periods each correspond to one bit of a digital video signal among n bits of the digital video signal;

a plurality of display periods, among the n + m display periods. correspond to the most significant bit of the digital video signal:

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other display periods corresponding to other bits of the digital video signal, among the n + m display periods, appear between the plurality of display periods;

for each of the n + m display periods. the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on. and the respective display periods begin by the third TFT turning off:

after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period, or by the third TFT turning on; and

the organic EL element emits light when the second TFT is turned on, and

5 does not emit light when the second TFT is turned off.

6. A method according to claim 5, wherein the first TFT and the second TFT have the same polarity.

10 7. A method according to claim 5, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

15 8. A method according to claim 5, wherein the first TFT functions as a switching TFT, the second TFT functions as a EL driver TFT, and the third TFT functions as a erasing TFT.

9. A method of driving an EL display device in which a plurality of pixels, each

20 having a first TFT, a second TFT, a third TFT, and an organic EL element, are formed, wherein:

n + m display periods (where n and m are both natural numbers) appear in one frame period;

the n + m display periods each correspond to one bit of a digital video

25 signal among n bits of the digital video signal;

upper bits of the digital video signal correspond to a plurality of display periods among the $n + m$ display periods;

other display periods corresponding to other bits of the digital video signal, among the $n + m$ display periods, appear between the plurality of display periods;

for each of the $n + m$ display periods, the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on, and the respective display periods begin by the third TFT turning off;

10 after each of the $n + m$ display periods begins, the respective display periods are completed by the beginning of another display period, or by the third TFT turning on; and

the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off.

15 10. A method according to claim 9, wherein the first TFT and the second TFT have the same polarity.

11. A method according to claim 9, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

12. A method according to claim 9, wherein the first TFT functions as a switching TFT, the second TFT functions as a EL driver TFT, and the third TFT functions as a erasing TFT.

13. A method of driving an EL display device in which a plurality of pixels, each having a first TFT, a second TFT and an organic EL element, are formed, wherein:

n + m display periods (where n and m are both natural numbers) appear in one frame period:

5 the n + m display periods each correspond to one bit of a digital video signal among n bits of the digital video signal;

a plurality of display periods, among the n + m display periods, correspond to the same bit of the digital video signal;

10 other display periods corresponding to other bits of the digital video signal, among the n + m display periods, appear between the plurality of display periods;

for each of the n + m display periods, the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on:

15 after each of the n + m display periods begins, the respective display periods are completed by the beginning of another display period: and

the organic EL element emits light when the second TFT is turned on, and does not emit light when the second TFT is turned off.

14. A method according to claim 13, wherein the first TFT and the second TFT 20 have the same polarity.

15. A method according to claim 13, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the n - m display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, 25 Tr_{n-1}, Tr_n$.

16. A method according to claim 13, wherein the first TFT functions as a switching TFT and the second TFT functions as a EL driver TFT.

17. A method of driving an EL display device in which a plurality of pixels, each 5 having a first TFT, a second TFT, and an organic EL element, are formed, wherein:

n + m display periods (where n and m are both natural numbers) appear in one frame period;

the n + m display periods each correspond to one bit of a digital video signal among n bits of the digital video signal;

10 a plurality of display periods, among the n + m display periods. correspond to the most significant bit of the digital video signal;

other display periods corresponding to other bits of the digital video signal, among the n + m display periods, appear between the plurality of display periods;

15 for each of the n + m display periods. the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on;

after each of the n + m display periods begins, the respective display periods are completed by the beginning of another display period: and

the organic EL element emits light when the second TFT is turned on, and 20 does not emit light when the second TFT is turned off.

18. A method according to claim 17, wherein the first TFT and the second TFT have the same polarity.

19. A method according to claim 17, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods, corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

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20. A method according to claim 17, wherein the first TFT functions as a switching TFT and the second TFT functions as a EL driver TFT.

21. A method of driving an EL display device in which a plurality of pixels, each 10 having a first TFT, a second TFT, and an organic EL element, are formed, wherein:

n + m display periods (where n and m are both natural numbers) appear in one frame period;

the n + m display periods each correspond to one bit of a digital video signal among n bits of the digital video signal;

15 upper bits of the digital video signal correspond to a plurality of display periods among the n + m display periods;

other display periods corresponding to other bits of the digital video signal, among the n + m display periods, appear between the plurality of display periods;

20 for each of the n + m display periods, the corresponding bit of the digital video signal is input to a gate electrode of the second TFT by the first TFT turning on;

after each of the n + m display periods begins, the respective display periods are completed by the beginning of another display period; and

the organic EL element emits light when the second TFT is turned on, and 25 does not emit light when the second TFT is turned off.

22. A method according to claim 21, wherein the first TFT and the second TFT have the same polarity.

23. A method according to claim 21, wherein $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1} = 2^0, 2^1, 2^2, \dots, 2^{n-2}, 2^{n-1}$, where the lengths of the display periods, among the $n + m$ display periods corresponding to respective bits of the digital video signal are taken as $Tr_1, Tr_2, Tr_3, \dots, Tr_{n-1}, Tr_n$.

24. A method according to claim 21, wherein the first TFT functions as a switching TFT and the second TFT functions as a EL driver TFT.